(19) World Intellectual Property **Organization**

International Bureau





(43) International Publication Date 25 August 2005 (25.08.2005)

PCT

(10) International Publication Number WO 2005/077962 A2

(51) International Patent Classification⁷: A61K 51/00

C07F 13/00,

(21) International Application Number:

PCT/US2005/004872

(22) International Filing Date: 10 February 2005 (10.02.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/543,176

10 February 2004 (10.02.2004)

- (71) Applicant (for all designated States except US): PURDUE RESEARCH FOUNDATION [US/US]; 3000 Kent Avenue, West Lafayette, IN 47906 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): LIU, Shuang [CA/US]; 3304 Jasper Street, West Lafayette, IN 47906 (US). HE, Zhengjie [CN/US]; 170 Burke Court, Apt. 312, West Lafayette, IN 47906 (US).
- (74) Agent: ZAYIA, Gregory, H.; Brinks Hofer Gilson & Lione, P.O. Box 10087, Chicago, IL 60610 (US).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CROWNED DITHIOCARBAMATE METAL COMPLEXES AND METHODS FOR THEIR USE

(57) Abstract: Compositions containing crowned dithiocarbamate metal complexes and methods of using these compositions; neutral and cationic radioactive metal-nitrido complexes of crowned dithiocarbamates (DTCs) and methods of using these complexes as radiopharmaceuticals for diagnosis and treatment of cardiovascular disorders, infectious diseases, and cancer; tripodal chelatormetal complexes of crowned DTCs and methods of using these complexes for treating diseases such as those characterized by nitric oxide overproduction; and methods of using crowned DTCs for heavy metal detoxification are described.

